



# RF



VOL 36, NO. 4

ORANGE COUNTY AMATEUR RADIO CLUB

APRIL, 1995

## April Meeting , Friday the 21st

### How to Get on 6 Meters - Cheap!

by Chris Breller KJ6ZH

Six Meters is one of those "other" ham bands. You know, it's not one of the popular bands like 2 Meters or 440 Mhz or the HF bands. It's close to TV Channel 2 so it has a reputation for causing TVI. And it's only good for short distance communications, right? And to get an all mode rig costs as much as that small HF rig in your shack and all that for only one band, right?

WRONG! Here is an opportunity to get on 6 Meters with an all mode rig and a 4 element beam for as little as \$130.00. How, might you ask? TenTec, that last great manufacturer of American Built Ham Radios now offers a 6 Meter Transverter Kit for \$99.00. This kit comes complete and has an instruction manual reminiscent of Heath Kit. It takes about 12 hours to build but if you are not into kit building, TenTec offers this transverter fully assembled and tested for about \$150.00 (Still pretty cheap!). This transverter puts out 8 watts. Input is 5 watts or less on 14.000 MHz. It uses RF sensing to switch in and out so you only need to connect the coax between your HF rig and the transverter and provide 12 volts at 2 amps. You must keep the input to 5 watts maximum or else you will burn up this unit. About 7 days after placing my order with TenTec, my transverter arrived.

In the mean time, I had to come up with an antenna. Although a lot of stations use simple vertical antennas on 6, I opted for a 4 element Yagi beam similar to the 5 element design in the ARRL Antenna Handbook. All I did was eliminate the the third director. For materials, I went to Home Depot. The elements and boom are made of 1/2 inch thin wall metal electrical conduit. The element mounting plates and the boom to mast plate are made of 4 inch square metal electrical junction box covers. To secure the elements to the mounting plate and the mounting plate to the boom, I used 3/4 inch U-bolts. The Gamma match consisted of 14 inches of 1/4 " copper tubing, a 20-100 pf air variable capacitor (a compression trimmer should work for < 75 watts) both left over from other projects, some galvanized flashing, and a plastic project enclosure, an SO-239 chassis connector, and two 1-1/2 inch antenna U-bolts from Radio Shack. After drilling holes in the mounting plates ( be sure to oversize the holes slightly so you can adjust element alignment) for the U-bolts and cutting the boom and elements to length, I spaced the elements at .2 wavelengths and secured them with the 3/4 " U-bolts. After drilling holes in both ends of the plastic box, I installed the SO-239 connector on the plastic box with screws, inserted the copper tubing, secured the tubing with a rubber gromet for stress relief, and soldered the capacitor in series with the center conductor of the SO-239 and the tubing. This box was attached to the driven element with another U-bolt and the 3/4 " wide Gamma Shorting Bar , made from the flashing and a small nut and bolt, was attached to the far end of the copper tubing and the driven element. I used a conductive grease to ensure good electrical contact. A piece of coax braid was connected between the shield side of the SO-239 and one of the U-bolts on the driven element mounting plate. Tune up was accomplished by adjusting the capacitor for minimum SWR (1.3 : 1 in my case). I mounted it on an existing 19 ' mast I use to 2 Meter packet . Total cost for the antenna was \$22.00.

So how does it work? Well on 8 watts, I've worked into Santa Barbara and Paris (Ca., not France). The TenTec transverter has a good receive preamp built in and if I can hear 'em, I can work 'em! I also found that I can get into the FM repeaters as well. This has been a fun project with no TVI complaints from the neighbors. I can't wait for the Sporadic E season to start and to work 6 Meter DX!

RF April 1995

## Good of the Club

Will Galusha is seriously ill. Please send a card to his home address.

Jane Breller - KC6TAM will be having major surgery and needs O+ blood. If you are willing to donate, please contact her.

## 1995 Board of Directors

President .....	Jim Roberts .....	N6XTJ .....	310 988-0121
Vice President ...	Cindy Hughes .....	KC6OPI .....	971-3448
Secretary .....	Don Hughes .....	KC6ONZ .....	971-3448
Treasurer .....	Frank Smith .....	WA6VKZ .....	838-3180
Activities .....	Steve Raemussen .....	KE6NAH .....	630-3305
Membership .....	Bud Barkhurst .....	WA6VPP .....	774-6361
Public Relations .....	Jane Breller .....	KC6TAM .....	310 888-2077
Tech Committee .....	Tom Thomas .....	WA6PFA .....	771-2917
Member at Large .....	Chris Breller .....	KJ6ZH .....	310 888-2077
Member at Large .....	Bob Buss .....	KD6BWH .....	634-2996

## CLUB APPOINTMENTS

Club Historian .....	Bob Evans .....	WB6IXN .....	543-9111
W6ZE Trustee .....	Bob Eckweiler .....	AF6C .....	639-5074
RF Editor .....	Cindy Hughes .....	KC6OPI .....	971-3448
Refreshments .....	.....	.....	.....

## Treasurer's Report

Month of: March 1995

### Income:

By:	Dues	ARRL	Coffee	Sweepstakes	Donations
Reg W6ZXI	\$12.00				
Jane for W6IBR/W6IBP	\$18.00				
Tim WA6OWD	\$12.00				
Don KC6ONZ/KC6OPI/KD6FZE	\$24.00				
Paul WD6FMX	\$12.00				\$8.00
Steve KE6NAH				\$47.00	
Steve KE6NAH			\$4.00		
Steve KE6NAH				\$43.00	
TOTALS:—————>	\$78.00	\$0.00	\$4.00	\$90.00	\$8.00

### Expenses:

By:	Printing	Postage	Stakes	Coffee	ARRL
Bud WA6VPP	\$39.24	\$35.00			
Steve KE6NAH			\$51.86		
TOTALS:—————>	\$39.24	\$35.00	\$51.86	\$0.00	\$0.00

		Financial Summary	Year to Date	March 31, 1995
Income:		Expenses:		
Dues:	\$468.00	Printing:	\$53.79	
ARRL:	\$170.00	Postage:	\$67.00	
Coffee:	\$ 17.17	Coffee:	\$ 0.00	
Sweepstakes:	\$169.00	Sweepstakes:	\$144.78	
Donations:	\$ 84.00	ARRL:	\$158.00	
Total:	\$908.17	Misc.:	\$351.06	
		Total:	\$774.63	

Beginning Balance: \$314.30  
Income YTD \$908.17  
less Expenses YTD \$774.63  
Current Balance: \$447.84

## DUES

Regular Member ..... \$12.00      Additional Family Members \$8.00  
Teenage Member ..... 6.00      Optional Club Badge ..... 5.00  
Dues for new members are prorated quarterly from January of each year.  
Family members must reside at the address of a Regular Member. One RF is sent per household.

## RF April 1995

### NETNEWS

3/1 15m phone net - W6ZE/AF6C checks in NGO, COJ, HHC, & IXN. COJ announces that N6UC's XYL passed away vy suddenly wid a severe stroke.

NGO suggests OPs send a Club letter of condolence. OPs tnx COJ fer K6ZE's presentation at last Club meeting. Maybe COJ will hve K6ZE bk at a Club meeting to talk abt his trip up the Amazon River. HHC, bk frm San Jose on a business trip, tells AF6C he has sum AC hum on his sigs. COJ says the Denny's Restaurant at Grand & 17th is available fer Sat. Club Bfasts if needed. And HHC works Kaaz on 15m! IXN believes certain sigs frm Crystal Seismometer, in the San Gabriels, tells him when land is moving without an earthquake!

3/1 2m phone net - W6ZE/IXN checks in JSV, HHC, RE, ZH & TAM, VDP, QW, FUZ, & VPC. IXN relates the passing of N6UC's XYL to the Net. JSV & EZS clean house, wid loads of junk to the G-man!.. Anybody need a horse wid a clock in the middle, or, a cracked sea shell frm Catalina?..Hi! RE announces that Geo. Wilson is slowly recuperating frm a severe stroke. And for those interested in solar reports, Scott, WA4TTK, has a windows version of Solar Graphics Program for the asking. Send a formatted HD disk wid mailer & return postage to Scott at 409 Jessie Dr., Nashville, TN. 37211-3534. Tnx, Alex. HHC gives all OPs gud sig rpts tonite. And Ken asks if any OPs are familiar wid a financial records program called Quicken. ZH & TAM heard abt, but didn't feel anything frm the 3.8 event this morning. Chris, not feeling well, rests frm a day of work & plays arnd wid OSCAR 13. The Docs are still trying to discover TAM's medical problems! VDP picks up a new toy at the TRW Swap Meet, an MFJ CW keyboard fer 25 bucks. Now Larry awaits an operating manual! And VFC & VDP get new crystals fer the 6m HTs. Dennis & Larry will play wid the trimmer caps to tweak up power, etc. And Dennis makes successful 6m contacts in Huntington Beach, Palos Verdes, Clairmont & Fontana. QW picks up one more county in MO., leaving only 3 left in KY fer the WAC! Wid the whole house painted & all ham gear moved downstairs, Rolf is ready to sell the QTH anytime! And QW & VDP unsuccessfully search fer a QRN source that travels slowly across the 20m band at the QTH. FUZ attends a T. of Roses meeting and will bring applications fer volunteer help to next Club meeting. And Rob supplies emergency communications at a car fire near Ball Rd & West Streets.

3/8 15m phone net - W6ZE/AF6C checks in NGO, HHC, & IXN. 'Nine Gallons Ouput' contemplates a muddy 'back 40' frm the next storm. And Kei finishes a welding project fer Ken. IXN works wid depths of earthquakes frm the program SEISMIC. And AF6C collects 4" of rain in the guage frm the last storm! HHC offers to replace Kei's welding rods used on the Project. And Ken watches the next big storm approaching on PRODIGY, as he prepares to enjoy the storm reading two new paperbacks!

3/8 2m phone net - W6ZE/IXN checks in BPX, NG7D, RE, VDP, QW, HHC, FUZ, BVF, TWA, & BWH. BPX, wid leg trouble, misses last net, but Wyatt collects 2 3/4" of rain frm the last storm. And Wyatt still has a little throat trouble frm the stroke. BWH has Newsline already to roll as ZE checks him in! And IXN doesn't think to call Bob on the landline & tell him Newsline has weak audio! NG7D, bothered wid moisture & allergies, hasn't felt well fer past 3 days! However, John manages to work Niles, J88CX, on Bequia Is. off the coast of Venezuela on 15m! And NG7D collects a doz. new stations on the RS-12, bringing his total near 200 stations worked! When John gets 3 states confirmed, and the 6 remaining states worked, he'll apply fer his RS-12 WAS! RE collects 4+" of rain in the guage, wid a total near 23" fer the year! Alex reads ARRL bulls., announcing that Vanity Call Sign forms will be available after May 1. To get a Form 610V, send an SASE to: ARRL VEC, ARRL Hdqtrs., 225 Main Street, Newington, CT. 06111, requesting a form 610V. VDP is tired of the rain, gets the 6m HT tweaked up, plans to talk to NG7D abt his comedy bits collection, sells sum of RVS' equipment, & chats wid BVF abt beam antennas! QW has rain damage in the house at Big Bear. And the QTH is ready fer a buyer anytime! And Rolf is still searching fer a vy annoying source of QRN at the QTH (or in the neighborhood)! FUZ loses the voice a couple of days ago. IXN had somewhat of a similar problem abt a year ago. Rob starts the Spring planting as the XYL gets ready to test fer her 1st ham ticket! BVF considers a beam fer HF work, experiences sum problems wid the MFJ ant tuner, and enjoys

## RF April 1995

working fer the WAS on 20 & 40 meters! IXN asks TWA abt SA River height during last storm. Charles says water is high & running abt 32 mi/hr! But there isn't any debris in the water. TWA doubts the golf course will be able to open by July! Charles & XYL miss all the rain in the last storm..They were in Laughlin, NV. doing a little gambling & watching 1st-run movies!

3/15 15m phone net - W6ZE/AF6C checks in NGO, COJ, HHC, IXN, & NG7D. NGO, wid wet ground, & HHC's guy poles finished, contemplates the Club Bfast on April Fool's day! COJ asks AF6C if the Newsletter has been mailed yet, &, if the Marine Base in Santa Ana has been contacted fer FD yet. Bob tells Dave to wait fer 2m net fer answer to Newsletter question. Dave says he has a copy of a former letter to the Marine Base that cud be used agn if we change dates! And Bob tells COJ that Global Positioning Systems will be topic at next Club meeting Fri eve. AF6C opens the car roof & lets the sunshine in today! HHC answers IXN's inquiry abt the guy poles Kei completed fer Ken's 'War of the Worlds' tower! And NG7D has 41 states confirmed for a WAS on the RS-12. (the Russian Satellite, Radio Sport 12)

3/15 2m phone net - W6ZE/IXN checks in BPX, ZH & TAM, FUZ, RE, QW, VDP, BWH/m, VFC, & KD6UBK, Del, at the El Toro Air Station. BPX gets 1 1/2" of rain frm the last storm, while IXN gets abt 2" of rain in SA. Wyatt looks over exercise bikes, while Blanche checks out curtain rods at Target. And AAA helps BPX change a dead battery in the auto. ZH works the Contest over last weekend, & Chris alerts OPs to 3D2 calls frm Conway Reef in a week! TAM busies herself making goodies fer Club Meeting Fri. eve.! 'Speechless Rob' finally got his voice back, and FUZ will be at Meeting Fri. eve. wid TORA applications fer those who wish to work the Rose Parade in Pasadena! RE didn't hear BWH/m check in frm the Freeway wid the HT wid ducky ant. Alex, wid a NEW gardener, left 9 bags of trash fer the G-man! Alex handles sum MARS traffic, reads a propogation bulletin, & informs OPs that Cindy, OPI, is working the floods in N. CA. wid the Red Cross! BWH, after airing Newsline, informs OPs that Cindy left 'RF' wid Bud, VPP, before leaving S. CA. QW still needs 3 counties fer the WAC. And 20m is still bad wid the buzzing QRN that Rolf has not yet isolated! And, abt Apr. 15, QW & XYL will be off fer Spokane to check on developments wid the new QTH! VDP replaces old plumbing on the bathtub drain, & like IXN, Larry runs into trouble trouble troubles! VDP hears on the 220 Cluster, that a Special Events station wid a GB0 call is on 15m. Larry tunes to 15m & works the OP 'just like that'! VFC brings bk 'old college day' memories to IXN as Dennis tells OPs abt listening to short wave stations around the world on an old Gonset receiver he just picked up! And VFC will be down fer 3 or 4 days next week wid a new 'skin graft' on his knee.

3/22 15m phone net - W6ZE/AF6C checks in IXN, NGO, & HHC. NGO & HHC still hears hum on AF6C's sigs, but IXN still can't hear any hum on Bob's audio! Bob is examined by the medics & given a clean bill of health on the esophagus. Meantime, he watches his alma mater, Penn State, beat Nebraska on the B-ball court! NGO & Bob discuss what color HHC shud paint the guy posts fer the tower, and NGO has a gud 15m contact wid Kaz 'across the puddle' this afternoon! Now, HHC is preparing the QTH fer sand blasting & painting!

3/22 2m phone net - W6ZE/IXN checks in RE, ZH & TAM, OPI, NG7D, VDP, BPX, HHC, QW, BWH, UBK, & FMX. RE cleans up the 'back forty' vy quickly wid the new gardeners, and Alex will disconnect the rig to prevent lightning damage before retiring fer the nite! RE airs the ARRL Bulls., and leaves the net at 9 pm to pass MARS net traffic. BPX gets 3/4" of rain frm the last storm and Wyatt finds the 'back swamp' too wet fer weeding! OPI checks in via landline at ZH & TAM's QTH. Cindy & IXN talk abt the Seismographs in Menlo Park. OPI is on flood duty wid the Red Cross in Northern CA.! NG7D notifies OPs that the Coast Guard will cease CW operations on Apr. 1!! Their last message will be a commemorative message rewarded with a certificate to OPs who copy the message on 5.870, 8.471, 12.178.5, or, 16.976 MHz, at (what time, John?) Send your copied message to: USCG CAMSLANT, % MSGA Northwest, Chesapeake, VA. 23322 Attn: TC3 S. Morales, KP4FFW. Like BPX, VDP wud like sum dry time to get the yard work done. And Larry asks NG7D where he got the CG bulletin abt CW cessation. And VDP says VFC had a 'hot' opening (Kuwait) on 17m this morning! QW 'gets a bite' on the house in Big Bear, as he & the XYL prepare to visit the new QTH site in Spokane. Rolf still needs 3 Counties fer WAC, he can't get rid of the 'wandering QRN' at the QTH!

## RF April 1995

3/29 15m phone net - W6ZE/AF6C checks in NGO, IXN, NG7D, & HHC. NGO, having finished a lil snooze, hears IXN well. Kei has a gud contact wid Kaz at 3 pm today on 15 & 20m. NG7D & IXN discuss the clandestine radio station on 1660 KHz! HHC surveys the mess after the sandblasting crew finishes the QTH! And Ken puts up the shutters on the QTH in preparation for the painters. HHC unsuccesfully tries to hear Kei contact Kaz last Sun. And Ken trnx AF6C fer a 3mm screw that was just right fer the computer!

3/29 2m phone net - W6ZE/IXN checks in RE, BPX, NG7D, BWH, QW, BVF, DZL, VDP, UBK, FUZ, & SBP. Nice check-in, OPs! BPX gets 1 1/2" of rain out of the last storm! Now Wyatt pays for it wid an army of weeds on the 'back 40'! BPX visits the Doc tomorrow to hve a rash checked out. BWH, loud & crisp at IXN's QTH, airs an interesting Newsline. RE is diagnosed wid a cataract in one eye...more Doc appts. in May & June! And Alex says get-well cards fer W4OYI can be sent to 1649 Griffith Ave., Owensboro, KY. 42301. NG7D tells OPs abt clandestine radio station on 1660 KHz. And John gets Rhode Island on the RS-12 at 00:05 hrs...only 8 states left fer an RS-12 WAS! QW finds the source of his QRN!...a touch lamp!! And tomorrow, Rolf will try to pick up his missing counties wid a lil help frm a roving OP! Congrats to Mel, BVF, on picking up his Advanced class license last week! And DZL perks up VDP's ears wid the installation of a 6m module in the rig! VDP is painting his mother's blown down, repaired fence. And Larry hears the Clandestine radio station shut down at 9:29 pm local time! Talk abt luck...VDP plans to build a crystal tester, goes to the Swap Meet and finds a one-only black box homebrew model of his crystal tester project already built, which Larry purchases immediately!...(And it works!) UBK puts in booming sigs at OP QTHs as Del works the Net frm the 3rd floor of a lighter-than-air hanger at the Marine Helicopter Station in Tustin, wid a telescoping 1/2 wave ant. on the rig. FUZ plans to win the rig the Club will soon auction! And FUZ's XYL, Elvia, KE6SBP, gets congrats frm OPs on her first net operation. Elvia announces that daughter Eve, also got her ticket, KE6SBO! Congrats to Eve, who had to go to bed...school tomorrow! And, VDP announces sale of Govt. Surplus at the El Toro Marine Air Station! Go to Main Entrance at Trabuco & Grand Canyon. Have your driver's license & proof of auto insurance fer admittance to the Base. Times: Mon. thru Wed., 9 am to 1 pm., every week. And, 8 am to 2 pm the 3rd Sat. of the month! Tnx, Larry!

## SHOW YOUR PRIDE IN THE OCARC!



MAIL ORDER TO:

L&B PRINTING COMPANY  
Marcum's QSL's  
4645 Pine Street  
Riverside, CA 92501-4001

OR CALL: 1-800-390-2220 FOR CREDIT CARD ORDERS

100	- \$22.00*
250	- \$26.00*
500	- \$34.00*
1000	- \$45.00*

\*PLUS \$3.75 SHIPPING

YOUR ADDRESS

100    250    500    1000  
 CHECK    MONEY ORDER



CARD # \_\_\_\_\_ EXP. DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

---

## Club Nets

Band	Mode	Day	Local Time	Freq. MHz	Net Control
15 Meters	SSB	Wed.	8:00 PM	21.375*	AF6C
2 Meters	FM	Wed.	8:30 PM	146.550 Simplex	WB6IXN
40 Meters	CW	Thurs.	7:30 PM	7.135*	WA6RND

(Listen for W6ZE, Net Control)

\* Plus or Minus QRM

---

### General Meeting

April 21

May 19

June 16

General Meeting is the 3rd Friday of each month at 7:30 pm.  
AMERICAN RED CROSS

601 N. Golden Circle, Santa Ana, CA

Talk-in Freq. 146.550 Simplex

Major Cross Streets: Fourth St. & Tustin Ave.

### Board Breakfast

May 6

June 3

July 1

Board Meeting is the 1st Saturday of each month at 8:00 am.  
THE WILDFLOWER RESTAURANT - Members & Visitors are

welcome. Grand Ave., Santa Ana, CA

Exit the 5 Freeway at 17th Street, go west, or exit the 5 Freeway  
at 17th Street, go east to Grand, go north on Grand; or exit the  
22 Freeway at Grand Ave., go south.

---

Orange County Amateur Radio Club, Inc.  
P.O. Box 3454  
Tustin, CA 92681



**First Class Mail**

**Time-Dated Material.  
Please Rush!**